

REMARKS

Claims 24-46 remain in this application. Claims 1-31 are rejected. Claims 32-46 are withdrawn from consideration. Claim 30 is amended herein to address matters of form unrelated to substantive patentability issues.

Applicants herein traverse and respectfully request reconsideration of the rejection of the claims cited in the above-referenced Office Action.

Claims 24-31 are rejected as obvious over Razi et al. (US 5,417,904) under 35 U.S.C. §103(a). The applicants herein respectfully traverse this rejection. For a rejection under 35 U.S.C. §103(a) to be sustained, the differences between the features of the combined references and the present invention must be obvious to one skilled in the art.

It is respectfully submitted that a *prima facie* case of obviousness has not been established in the rejection of claims 24-31. "To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the

prior art, and not based on the applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)." MPEP §706.02(j) "Contents of a 35 U.S.C. §103 Rejection".

Despite fully supported arguments presented by applicants to the contrary, it remains the Examiner's position that Razi et al. discloses wood that is in a molten condition. The Examiner refers to col. 1, lines 59-65 in alleged support of this position. Applicants submit that this passage in Razi et al. fails to disclose that particulate wood disclosed therein is ever in a molten state, or that a molten state of the wood chips added to a polymer is inherent in the disclosure.

The noted disclosure of Razi et al. simply discloses that a melt of a thermoplastic polymer is prepared, and that particulate wood is added to the molten thermoplastic. More significant, is that the description goes on to say, at col. 2, lines 4-13, that a "particulate wood-filled polymer melt" results, and that such substance is compressed "to establish intimate contact and bonding sites between the polymer melt and the particulate wood disposed therein." It is clear from this disclosure that the particulate wood remains in the same solid state in which it is in when introduced to the molten thermoplastic, and is present in the thermoplastic polymer as a filler. The disclosure does not teach that the particulate wood is melted upon introduction to the molten thermoplastic, but to the contrary, the invention disclosed therein relies on the material characteristics of particulate wood which remains in solid form to achieve the objects of the invention of Razi et al., i.e., a composite substance in

which the presence of wood chips allow nails driven into a board or block made of such composite to be tightly engaged therein (see col. 4, lines 6-13). As stated, for example, at col. 3, lines 58-60, the resultant substance produced by the above disclosed approach is “a composite composition which comprises wood chips disposed within a thermoplastic polymer matrix.” (Emphasis added). Applicants submit that such disclosure is clearly not susceptible to an interpretation which implies a structure comprised of solidified molten wood disposed in a thermoplastic polymer.

In making the rejection of claims 24-46, the Examiner fails to point to any teaching in Razi et al. which places the allegedly disclosed matter, directed specifically to wood in a molten condition, in the possession of the public. The disclosure simply does not in any manner state that the wood itself is ever in a molten state. Moreover, the Examiner has failed to explain how he would propose to melt wood at a temperature of about 500° F., i.e., the maximum temperature of the molten thermoplastic polymer as disclosed in Razi et al.. As the Substitute Specification of the instant application indicates at page 3, lines 9-10, the melting temperature of cellulose (wood) has been theoretically determined as being 450° C., or, expressed in equivalent Fahrenheit degrees, 842° F. This melting point temperature exceeds the highest temperature disclosed in Razi et al. by 342 Fahrenheit degrees. Even more dramatic evidence of the failure of Razi et al. To teach wood in a molten state are given in Examples 1 and 2 in Razi et al. (cols. 7 and

8), in which the thermoplastic polymer melts are only heated to about 120°-130° C. (Not much higher than boiling water!). Therefore, the solid wood chips exposed to the molten thermoplastic polymer when mixed therewith cannot, by any stretch of the imagination, be reduced to a molten state.

Consequently, since the wood particulate matter in Razi et al. is never in a molten state, the wood characteristics in Razi et al. cannot conceivably comprise “wood including altered properties in geometrically defined near-surface areas . . . having properties of solidified wood melts” as claimed. Furthermore, the disclosure of Razi et al. cannot provide teaching or suggestion relevant as to the issue of the presence or absence of pyrolytic degradation products, since as recited in the claims, these generally undesirable products are referred to as being substantially absent from a solidified wood melt.

Based upon the foregoing fully supported arguments, it is submitted that the Razi et al. reference fails to teach or suggest all the claim limitations as properly required to establish a *prima facie* case of obviousness. Therefore, reconsideration of the rejection of claims 24-31 and their allowance are respectfully requested.

Applicants respectfully request a three (3) month extension of time for responding to the Office Action. Please charge the fee of \$950 for the extension of time to Deposit Account No. 10-1250. A Notice of Appeal accompanies this response.

In light of the foregoing, the application is now believed to be in proper form for allowance of all claims and notice to that effect is earnestly solicited. Please charge any deficiency or credit any overpayment to Deposit Account No. 10-1250.

Respectfully submitted,
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